8
Operating Costing

Learning Objectives

When you have finished studying this chapter, you should be able to

- Understand the meaning and distinctive features of Operating Costing
- Understand the units used in different service industries
- Understand the meaning of multiple costing.

8.1 Meaning of Operating Costing

Operating Costing is a method of ascertaining costs of providing or operating a service. This method of costing is applied by those undertakings which provide services rather than production of commodities. The emphasis under operating costing is on the ascertainment of cost of services rather than on the cost of manufacturing a product. This costing method is usually made use of by transport companies, gas and water works departments, electricity supply companies, canteens, hospitals, theatres, schools etc.

CIMA (London) defined operating costing as "that form of operation costing which applies where standardised services are rendered either by an undertaking or by a service cost centre within an undertaking."

8.2 Unit of Cost in Operating Costing

For computing the operating cost, it is necessary to decide first, *about the unit* for which the cost is to be computed, this may often require the study of some technical and operating data, for finding out the factors which have a bearing on cost. Cost units are usually the units of physical measurement like number, weight, area, volume, length, time and value. The followings are the examples of cost units used in operating costing:

Service industry	Unit of cost used
Transport Services	Passenger- km., (In public transportation) Quintal- km., or Tonne- km. (In goods carriage)
Supply service	Kilowatt- hour (kWh) (In power generation & distribution)

	Cubic feet (In water supply) per kg., per litre.
Hospital	Patient per day, room per day or per bed, per operation etc.
Canteen	Per item, per meal etc.
Cinema	Per ticket.

Composite Cost Unit: Some time two measurement units are combined together to know the cost of service or operation. These are called composite cost units. For example a public transportation undertaking would measure the operating cost per passenger per kilometre.

Examples of Composite units are Tonne- km., Quintal- km, Passenger-km., Patient-day etc. Composite unit may be computed in two ways.

(i) Absolute (Weighted Average) Tonne-km., Quintal- km. etc.

(ii) Commercial (Simple Average) Tonne-km., Quintal- km. etc.

(i) Absolute (Weighted Average) Tonne-km.: Absolute tonne-km., are the sum total of tonne-km., arrived at by multiplying various distances by respective load quantities carried.

$$\sum(\text{Weight Carried} \times \text{Distance})_1 + (\text{Weight Carried} \times \text{Distance})_2 + \ldots + (\text{Weight Carried} \times \text{Distance})_n$$

(ii) Commercial (Simple Average) Tonne-km.: Commercial tonne-km., are arrived at by multiplying total distance km., by average load quantity.

$$\sum(\text{Distance}_1 + \text{Distance}_2 + \ldots\ldots\ldots\ldots + \text{Distance}_n) \times \left(\frac{W_1 + W_2 + \ldots\ldots\ldots + W_n}{n}\right)$$

Note: To understand the concept of absolute tonne-km., and commercial tonne-km., students should refer to the following illustration.

Illustration 1 (Computation of absolute tonne-km. and commercial tonne-km.)

A lorry starts with a load of 20 tonnes of goods from station A. It unloads 8 tonnes at station B and rest of goods at station C. It reaches back directly to station A after getting reloaded with 16 tonnes of goods at station C. The distance between A to B, B to C and then from C to A are 80 km., 120 km., and 160 km., respectively. Compute 'Absolute tonne-km.,' and 'Commercial tonnes-km.

Solution

Absolute tonne-km. =

A to B	(20 tonne × 80 km.)	1,600 tonne-km.
B to C	(12 tonne × 120 km.)	1,440 tonne-km.
C to A	(16 tonne × 160 km.)	2,560 tonne-km.
		5,600 tonne-km.

Commercial tonne-km. = Average load × total kilometers travelled

$$= \left(\frac{20+12+16}{3}\right) \text{tonne} \times (80 \text{ km.} + 120 \text{ km.} + 160 \text{ km.})$$

= 16 tonne × 360 km. = 5,760 tonne-km.

8.3 Preparation of Cost Sheet under Operating Costing

For preparing a cost sheet under operating cost, costs are usually accumulated for a specified period viz., a month, a quarter, or a year etc.

All of the accumulated costs should be classified under the following three heads:

1. Fixed costs or Standing charges,
2. Variable costs or Running charges,
3. Semi-variable costs or Maintenance costs.

Note : In the absence of information about semi-variable costs, the costs may be shown under two heads only, i.e., fixed and variable.

$$\text{Operating Cost per unit} = \frac{\text{Total Operating Costs}}{\text{Total units of service}}$$

Treatment of Depreciation and Interest - Depreciation if related to efflux of time (e.g. useful life is say five years) are treated as fixed cost. On the other hand, if depreciation is related with the activity level (e.g. useful life is say 20,000 km.), it may be treated as variable cost.

If information about interest is explicitly given, it may be treated as fixed cost.

Illustration 2 (Calculation of bus fare to be charged from each passenger)

You have been given a permit to run a bus on a route of 20 km. long. The bus costs you ₹ 9,00,000. It has to be insured @ 3% p.a. and the annual tax will be ₹ 10,000. Garage rent is ₹ 10,000 p.m. Annual repairs will be ₹ 10,000 and the bus is likely to last for 5 years and at the end of which the scrap value is likely to be ₹ 60,000.

The driver's salary will be ₹ 1,500 p.m. and the conductor's ₹ 1,000 together with 10% of the takings as commission (to be shared equally by both). Stationery will cost ₹ 500 p.m. The manager-cum-accountant's salary will be ₹ 3,500 p.m.

Diesel and oil be ₹ 450 per hundred kilometres. The bus will make 3 round trips for carrying on the average 40 passengers on each trip. Assuming 15% profit on takings, calculate the bus fare to be charged from each passenger. The bus will work on the average 25 days in a month.

Solution

Working Notes:

(i) Calculation of Depreciation of Bus (Per month)

$$= \frac{\text{Cost of the bus} - \text{Scrap value at the end of the 5 years}}{\text{Expected life of the bus}}$$

$$= \frac{₹9,00,000 - ₹60,000}{5 \text{ years}}$$

$$= ₹\ 1,68,000 \text{ p.a.}$$

$$\text{Depreciation per month} = \frac{₹1,68,000}{12 \text{ months}} = ₹14,000$$

(ii) Calculation of total distance travelled and Passenger-km. per month

Total distance = 3 trips × 2 × 20 k.m. × 25 days = 3,000 k.m.

Total Passenger-km. = 3 trips × 2 × 20 k.m. × 25 days × 40 passengers

= 1,20,000 Passenger-k.m.

(iii) Cost of Diesel & oil (Per month)

$$\text{Diesel and Oil} = \frac{\text{Total distance travelled}}{100 \text{ K.m.}} \times ₹450$$

$$= \frac{3,000 \text{ K.m.}}{100 \text{ K.m.}} \times ₹450$$

$$= ₹\ 13,500$$

Statement showing the Operating Cost per Passenger-km.

		(₹)	(₹)
(i)	***Standing Charges:***		
	Depreciation {Working Note- (i)}	14,000	
	Insurance Charge $\left(\frac{₹9,00,000}{12} \times 3\%\right)$	2,250	
	Manager-cum-accountant's salary	3,500	
	Annual Tax (p.m.) $\left(\frac{₹10,000}{12}\right)$	833.33	
	Garage Rent	10,000	30,583.33
(ii)	***Maintenance Charges:***		
	Repair & Maintenance per month $\left(\frac{₹10,000}{12}\right)$		833.33

(iii) Running Cost:		
Driver's Salary	1,500	
Conductor's Salary	1,000	
Stationery	500	
Diesel and oil {Working Note- (iii)}	13,500	
Total running cost before deducting commission to driver and conductor	16,500	16,500
Total cost excluding commission to driver and conductor		47,916.66
Driver's commission on collection*		3,194.45
Conductor's commission on collection*		3,194.44
Total Cost {(i) +(ii) + (iii)}		54,305.55
Add: Profit**		9,583.33
Total Collection		63,888.88

Working note:

Total costs before commission on collection and net profit is ₹ 47,916.66.

Commission on collection to driver and conductor is 10% of collection and Profit is 15% of collection means

100% - (10% + 15%) i.e. 75% = ₹ 47,916.66

So, Total collection $= \frac{₹47,916.66}{75} \times 100 = ₹63,888.88$

*Total Commission on collection = 10% × ₹ 63,888.88 = ₹ 6,388.89

Driver's share = 50% × ₹ 6,388.89 = ₹ 3,194.45

Conductor's share = 50% × ₹ 6,388.89 = ₹3,194.44

** Profit on collection = ₹ 63,888.88 × 15% = ₹ 9,583.33

Fare per Passenger-km. $= \frac{\text{Total Collection}}{\text{Total Passenger - km. \{Working Note (ii)\}}}$

$= \frac{₹63,888.88}{1,20,000}$

= ₹ 0.53 (appx.)

Illustration 3 (Calculation of average cost per student per month)

SMC is a public school having five buses each plying in different directions for the transport of its school students. In view of a larger number of students availing of the bus service the

buses work two shifts daily both in the morning and in the afternoon. The buses are garaged in the school. The work-load of the students has been so arranged that in the morning the first trip picks up senior students and the second trip plying an hour later picks up the junior students. Similarly in the afternoon the first trip takes the junior students and an hour later the second trip takes the senior students home.

The distance travelled by each bus one way is 8 km. The school works 25 days in a month and remains closed for vacation in May, June and December. Bus fee, however, is payable by the students for all 12 months in a year.

The details of expenses for a year are as under :

Driver's salary	*₹ 4,500 per month per driver*
Cleaner's salary	*₹ 3,500 per month*
(Salary payable for all 12 months)	
(one cleaner employed for all the five buses)	
Licence fee, taxes, etc.	*₹ 8,600 per bus per annum*
Insurance	*₹ 10,000 per bus per annum*
Repairs & maintenance	*₹ 35,000 per bus per annum*
Purchase price of the bus	*₹ 15,00,000 each*
Life of each bus	*12 years*
Scrap value of buses at the end of life	*₹ 3,00,000*
Diesel cost	*₹ 45.00 per litre*

Each bus gives an average mileage of 4 km. per litre of diesel.

Seating capacity of each bus is 50 students.

The seating capacity is fully occupied during the whole year.

Students picked up and dropped within a range upto 4 km. of distance from the school are charged half fare and fifty per cent of the students travelling in each trip are in this category. Ignore interest. Since the charges are to be based on average cost you are required to :

(i) Prepare a statement showing the expenses of operating a single bus and the fleet of five buses for a year.

(ii) Work out the average cost per student per month in respect of –

(A) students coming from a distance of upto 4 km. from the school and

(B) students coming from a distance beyond 4 km. from the school.

Solution

(i) Statement of Expenses of operating bus/ buses for a year

Particulars	Rate (₹)	Per Bus per annum (₹)	Fleet of 5 buses p.a. (₹)
(i) Standing Charges:			
Driver's salary	4,500 p.m.	54,000	2,70,000
Cleaner's salary	3,500 p.m.	8,400	42,000
Licence fee, taxes etc.	8,600 p.a.	8,600	43,000
Insurance	10,000 p.a.	10,000	50,000
Depreciation (15,00,000 – 3,00,000) ÷ 12 yrs	1,00,000 p.a.	1,00,000	5,00,000
(ii) Maintenance Charges:			
Repairs & maintenance	35,000 p.a.	35,000	1,75,000
(iii) Operating Charges:			
Diesel (Working Note 1)		1,62,000	8,10,000
Total Cost [(i) + (ii) + (iii)]		3,78,000	18,90,000
Cost per month		31,500	1,57,500
Total no. of equivalent students		150	750
Total Cost per half fare equivalent student		₹ 210	₹ 210

(ii) Average cost per student per month:

A. Students coming from distance of upto 4 km. from school

$$= \frac{\text{Total cost per month}}{\text{Total no. of equivalent students}} = \frac{₹31,500}{150 \text{ students}} = ₹210$$

B. Students coming from a distance beyond 4 km. from school

= Cost of per half fare student × 2 = ₹ 210 × 2 = ₹ 420

Working Notes :

1. *Calculation of diesel cost per bus* :

Distance travelled in a year : (8 round trip × 8 km. × 25 days × 9 months)

Distance travelled p.a. : 14,400 km.

Cost of diesel (per bus p.a.) : $\frac{14,400 \text{ km.}}{4 \text{ kmpl}} \times ₹45 = ₹1,62,000$

2. *Calculation of Equivalent number of students per bus :*

Seating capacity of a bus	50 students
Half fare students (50% of 50 students)	25 students

Full fare students (50% of 50 students)	25 students
Total number of students equivalent to half fare students	
Full fare students (25 students × 2)	50 students
Add: Half fare students	25 students
Total Equivalent number of students in a trip	75 students
Total number of equivalent students in two trips (Senior + Junior)	150 students

Illustration 4 (Computation of cost per absolute tonne-km. and profit for the month)

Global Transport Ltd. charges ₹ 90 per ton for its 6-tonnes truck lorry load from city 'A' to city 'B'. The charges for the return journey are ₹ 84 per ton. No concession or reduction in these rates is made for any delivery of goods at intermediate station 'C'. In January 2012, the truck made 12 outward journeys for city 'B' with full load out of which 2 tons were unloaded twice in the way at city 'C'. The truck carried a load of 8 tonnes in its return journey for 5 times but was once caught by police and ₹ 1,200 was paid as fine. For the remaining trips the truck carried full load out of which all the goods on load were unloaded once at city 'C', but it returned without any load once only from 'C' station to 'A' station. The distance from city 'A' to city 'C' and city 'B' are 140 km. and 300 km. respectively.

Annual fixed costs and maintenance charges are ₹ 60,000 and ₹ 12,000 respectively. Running charges spent during January 2012 are ₹ 2,944.

You are required to find out the cost per absolute tonne-kilometre and the profit for January, 2012.

Solution

Calculation of total monthly cost for running truck.

	Amount per annum (₹)	Amount per month (₹)
(i) *Standing Charges:*		
Annual fixed costs	60,000	5,000
(ii) *Maintenance Charges:*	12,000	1,000
(iii) *Running Cost:*		
Running charges		2,944
Total monthly cost		8,944

Cost per absolute tonne-km. $= \frac{₹\,8,944}{44,720\,\text{tonne}-\text{km.}} = ₹\ 0.20$

(Refer to working note)

Calculation of profit for the month of January 2012:

	(₹)	(₹)
Truck hire charges received during the month:		

From Outward journey (12 trips × 6 tonne × ₹ 90)	6,480	
From return journey {(5 trips × 8 tonne × ₹ 84) + (7 trips × 6 tonne × ₹ 84)}	6,888	13,368
Less: Monthly running cost	8,944	
Fine paid for overloading	1,200	(10,144)
Profit earned for the month		3,224

Working Notes:

Calculation of Absolute Tonne-km:

	Tonne-km.	Tonne-km.
Outward journeys:		
From city A to city B (10 journey × 300 km. × 6 tonne)	18,000	
From city A to city C (2 journeys × 140 km. × 6 tonne)	1,680	
From city C to city B (2 journeys × 160 km. × 4 tonne)	1,280	20,960
Return journeys:		
From city B to city A (5 journeys × 300 km. × 8 tonne) + (6 journeys × 300 km. × 6 tonne)	22,800	
From city B to city C (1 journey × 160 km.. × 6 tonne)	960	23,760
Total Absolute Tonne-km		44,720

Note: (i) While calculating absolute tonne-km., actual load carried are considered irrespective of the fact it attracts fines or penalty. (ii) Fine paid for overloading is an abnormal expenditure and is not included in the operating cost of the bus. This amount will be debited to Costing Profit and Loss A/c.

Illustration 5 (Calculation of fare to be charged from passengers from different routes)

Mr. X owns a bus which runs according to the following schedule:

(i) Delhi to Chandigarh and back, the same day.

Distance covered:	*250 km. one way.*
Number of days run each month :	*8*
Seating capacity occupied	*90%.*

(ii) Delhi to Agra and back, the same day.

Distance covered:	*210 km. one way*
Number of days run each month :	*10*
Seating capacity occupied	*85%*

(iii) Delhi to Jaipur and back, the same day.

Distance covered:	*270 km. one way*
Number of days run each month :	*6*

	Seating capacity occupied	*100%*
(iv)	*Following are the other details:*	
	Cost of the bus	*₹ 12,00,000*
	Salary of the Driver	*₹ 24,000 p.m.*
	Salary of the Conductor	*₹ 21,000 p.m.*
	Salary of the part-time Accountant	*₹ 5,000 p.m.*
	Insurance of the bus	*₹ 4,800 p.a.*
	Diesel consumption 4 km. per litre at	*₹ 56 per litre*
	Road tax	*₹ 15,915 p.a.*
	Lubricant oil	*₹ 10 per 100 km.*
	Permit fee	*₹ 315 p.m.*
	Repairs and maintenance	*₹ 1,000 p.m.*
	Depreciation of the bus	*@ 20% p.a.*
	Seating capacity of the bus	*50 persons.*

Passenger tax is 20% of the total takings. Calculate the bus fare to be charged from each passenger to earn a profit of 30% on total takings. The fares are to be indicated per passenger for the journeys:

(i) Delhi to Chandigarh (ii) Delhi to Agra and (iii) Delhi to Jaipur.

Solution

Working Notes:

Total Distance (in km.) covered per month

Bus route	Km. per trip	Trips per day	Days per month	Km. per month
Delhi to Chandigarh	250	2	8	4,000
Delhi to Agra	210	2	10	4,200
Delhi to Jaipur	270	2	6	3,240
				11,440

Passenger- km. per month

	Total seats available per month (at 100% capacity)	Capacity utilised		Km. per trip	Passenger- Km. per month
		(%)	Seats		
Delhi to Chandigarh & Back	800 (50 seats × 2 trips × 8 days)	90	720	250	1,80,000 (720 seats × 250 km.)
Delhi to Agra & Back	1,000 (50 seats × 2 trips × 10 days)	85	850	210	1,78,500 (850 seats × 210 km.)

Delhi to Jaipur & Back	600 (50 seats × 2 trips × 6 days)	100	600	270	1,62,000 (600 seats × 270 km.)
Total					5,20,500

Monthly Operating Cost Statement

	(₹)	(₹)
(i) Running Costs		
-Diesel {(11,440 km ÷ 4 km) × ₹ 56}	1,60,160	
-Lubricant oil {(11,440 km ÷ 100) × ₹ 10}	1,144	1,61,304
(ii) Maintenance Costs		
-Repairs & Maintenance		1,000
(iii) Standing charges		
-Salary to driver	24,000	
-Salary to conductor	21,000	
-Salary of part-time accountant	5,000	
-Insurance (₹ 4,800 ÷12)	400	
-Road tax (₹ 15,915 ÷12)	1,326.25	
-Permit fee	315	
-Depreciation {(₹ 12,00,000 × 20%) ÷ 12}	20,000	72,041.25
Total costs per month before Passenger Tax (i)+(ii)+(iii)		2,34,345.25
Passenger Tax*		93,738.10
Total Cost		3,28,083.35
Add: Profit*		1,40,607.15
Total takings per month		4,68,690.50

*Let, total takings be X then

X = Total costs per month before passenger tax + 0.2 X (passenger tax) + 0.3 X (profit)

X = ₹ 2,34,345.25 + 0.2 X + 0.3 X

0.5 X = ₹ 2,34,345.25 or, X = ₹4,68,690.50

Passenger Tax = 20% of ₹4,68,690.50 = ₹ 93,738.10

Profit = 30% of ₹4,68,690.50 = ₹ 1,40,607.15

Calculation of Rate per passenger km. and fares to be charged for different routes

$$\textbf{Rate per Passenger-Km.} = \frac{\text{Total takings per month}}{\text{Total Passenger} - \text{Km. per month}}$$

$$= \frac{₹\,4,68,690.50}{5,20,500\,\text{Passenger} - \text{Km.}} = ₹\ 0.90$$

Bus fare to be charged per passenger.

Delhi to Chandigarh	=	₹ 0.90 × 250 km	=	₹ 225.00
Delhi to Agra	=	₹ 0.90 × 210 km	=	₹ 189.00
Delhi to Jaipur	=	₹ 0.90 × 270 km	=	₹ 243.00

Illustration 6 (Evaluation of conveyance facilities)

A company is considering three alternative proposals for conveyance facilities for its sales personnel who has to do considerable traveling, approximately 20,000 kilometres every year. The proposals are as follows:

(i) Purchase and maintain its own fleet of cars. The average cost of a car is ₹6,00,000.

(ii) Allow the Executive use his own car and reimburse expenses at the rate of ₹10 per kilometer and also bear insurance costs.

(iii) Hire cars from an agency at ₹1,80,000 per year per car. The company will have to bear costs of petrol, taxes and tyres.

The following further details are available:

Petrol ₹6 per km.	*Repairs and maintenance ₹0.20 per km.*
Tyre ₹0.12 per km.	*Insurance ₹1,200 per car per annum*
Taxes ₹800 per car per annum	*Life of the car: 5 years with annual mileage of 20,000 km.*

Resale value: ₹80,000 at the end of the fifth year.

Work out the relative costs of three proposals and rank them.

Solution

Calculation of relative costs of three proposals and their ranking

		I Use of company's car	II Use of own car	III Use of hired car
	per annum (₹)	per km. (₹)	per km. (₹)	per km. (₹)
Reimbursement		--	10.00	9.00*
Fixed cost:				
Insurance	1,200	0.06	0.06	--
Taxes	800	0.04	--	0.04

Depreciation (₹ 6,00,000 - ₹80,000) ÷ 5 year	1,04,000	5.20	--	--
Running and Maintenance Cost:				
Petrol	--	6.00	--	6.00
Repairs and Maintenance	--	0.20	--	--
Tyre	--	0.12	--	0.12
Total cost per km.	--	11.62	10.06	15.16
Cost for 20,000 km.		2,32,400	2,01,200	3,03,200
Ranking of proposals		**II**	**I**	**III**

* (₹ 1,80,000 ÷ 20,000 km.)

The Second alternative i.e., use of own car by the executive and reimbursement of expenses by the company is the best alternative from company's point of view.

Illustration 7 (Calculation of cost of per kWh by a power generation company)

From the following data pertaining to the year 2014-15 prepare a cost statement showing the cost of electricity generated per kwh by Chambal Thermal Power Station.

Total units generated	*10,00,000 kwh*
	(₹)
Operating labour	*15,00,000*
Repairs & maintenance	*5,00,000*
Lubricants, spares and stores	*4,00,000*
Plant supervision	*3,00,000*
Administration overheads	*20,00,000*

5 kwh. of electricity generated per kg. of coal consumed @₹ 4.25 per kg. Depreciation charges @ 5% on capital cost of ₹2,00,00,000.

Solution

Cost Statement of Chambal Thermal Power Station

Total units generated 10,00,000 kwh.

	Per annum (₹)	Per k.w.h. (₹)
Fixed costs :		
Plant supervision	3,00,000	
Administration overheads	20,00,000	
Depreciation (5% of ₹ 2,00,00,000 p.a.)	10,00,000	

Total fixed cost: (A)	33,00,000	3.30
Variable costs:		
Operating labour	15,00,000	
Lubricants, spares and stores	4,00,000	
Repairs & maintenance	5,00,000	
Coal cost (Refer to working note)	8,50,000	
Total variable cost: (B)	32,50,000	3.25
Total cost [(A) + (B)]	65,50,000	6.55

Working Note:
Coal cost (10,00,000 kwh. ÷ 5 kwh) × ₹ 4.25 per kg. = ₹ 8,50,000

8.4 Standard Load

An alternative unit for the distribution of transport cost is the 'standard load'. Where the goods to be transported are of varying bulk and weight, the calculation of actual number of tonne-kilometres is not an easy matter. For example, if a business delivers its own products by its own transport, the cost per tonne-kilometres may be most misleading, for an article may have a bulk which is twice that of the other, though of the same weight. In such a case 'standard load' is selected as the unit, *i.e.,* the load which a lorry would carry. This would have reference both to bulk and weight and would give an efficient method for distributing the cost of transport over different departments. Thus, if the turnover of various departments is reduced to 'standard load' by first calculating their weight and then the bulk of article produced, the costs of distributing the product would be easily ascertained.

This principle also can be extended for associating cost with convenient units of service rendered by an organisation so that management is able to judge whether the organisation is running efficiently and in the manner in which the service requires to be improved or be made more economical. The cost of generation of electricity on the same principle is correlated with units generated and also with units sold; in hospitals the cost of their maintenance is co-related to units of 'available bed-days'.

8.5 Multiple Costing

It refers to the method of costing followed by a business wherein a large variety of articles are produced, each differing from the other both in regard to material required and process of manufacture. In such cases, cost of each article is computed separately by using, generally, two or more methods of costing. For instance, for ascertaining the cost of a bicycle, cost of each part will be ascertained by using batch or job costing method and, then the cost of assembling the parts will be ascertained by following the method of single or output costing.

8.6 Summary

Operating Costing:- Used by those undertakings which provide services rather than producing commodities.

Cost units used in the following services undertaken as below:-

Transport service –	*Passenger km., quintal km., or tonne km.*
Supply service –	*Kwh, Cubic metre, per kg., per litre.*
Hospital –	*Patient per day, room per day or per bed, per operation etc.*
Canteen –	*Per item, per meal etc.*
Cinema –	*Per ticket.*